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AVICULTURAL MAGAZINE

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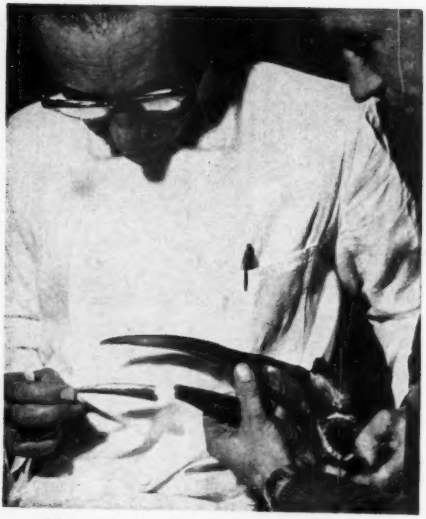

HORNBILL—BEFORE TREATMENT.

AFTER TREATMENT.

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AVICULTURAL MAGAZINE

THE JOURNAL OF THE AVICULTURAL SOCIETY
AND THE AVICULTURAL SOCIETY OF AMERICA

Vol. 64.—No. 5.—*All rights reserved.* **SEPTEMBER–OCTOBER, 1958**

A GROUND HORNBILL WITH AN ARTIFICIAL BILL

By J. C. PETERS (Veterinary Surgeon, Blijdorp Zoo, Rotterdam, Holland)

The translation of the following account which appeared in *Blijdorp Geluiden*, December, 1957, has been made by J. P. C. van Wachem, Dental Surgeon, Hilversum.

On 11th September, 1957, my assistance was requested for an African Ground Hornbill, a bird which lives mostly on the ground, which had broken off part of its lower bill. Probably something had frightened the bird and it had flown against the wire netting.

The part of the bill which had broken off was found in the cage ; it was cracked longitudinally in several places. The horny bill forms a sheath round the bony bill, something like the horn of a cow. Between the bone and horn is a thin layer of cells, which produce the horn, and it is evident that growth is impossible when this layer is missing. The Hornbill which takes its prey (in the Zoo small pieces of meat) with the point of its bill like a pair of pincers, and then throws it up and catches it in its open bill, cannot feed itself when one of the pincers is broken off. It would have been possible for it to feed if the upper bill had been shortened to the same length but then the bird would have been deformed and in the Zoo we wish to show animals in their normal state. So I had to try to recover the original condition as far as possible.

I succeeded in repairing the bill to the extent that the bird could feed normally, but it was too weak to fulfil this function permanently. The bill was provisionally strengthened with a metal splint on the outside but this was not a satisfactory solution and I got in touch with the Dental Laboratory " Halvax " at Schiedam. First a wax impression of the lower bill was made and in this a hollow prosthesis of plastic which was longer than the broken section and could be slipped over

the stump. We retained the stainless steel bone-screw which I had screwed on the stump to act as a pin for the hollow end, and after a short treatment of the stump, which first had to heal completely and be free of infection, the prosthesis was placed on it.

First the hollow prosthesis was filled with fluid plastic and then fixed in the right position on the stump. In a short time the fluid plastic hardened and the artificial bill was joined on. The head of the screw prevented it from slipping off but to be on the safe side two stainless steel wires were fitted in grooves on both sides of the fracture. Finally, the exterior was retouched with fluid plastic and polished.

The artificial bill was as firm as a rock and the bird could immediately eat with it, to the great satisfaction of all concerned. The experiment was entirely successful and up to the present the Hornbill is in good health and no way deformed.

* * *

BREEDING OF THE LEMON DOVE

Aplopelia larvata larvata (Temminck)

By A. A. PRESTWICH (Southgate, England)

The specific name *larvata*, meaning bewitched or enchanted, is perhaps reasonable : the alternative common names Cinnamon Dove (not to be confused with the Talpacoti Dove) and Rufous-necked Wood Dove are both appropriate ; but Lemon Dove is misleading in the extreme, as it is neither lemon in colour nor, apparently, has it any partiality to lemon trees. It has, however, been suggested that it is a misapplication of the Afrikaans name Lemoen-Duifie for the Laughing Dove.

Levaillant discovered " La Tourterelle à masque blanc " in the Autiniquoi Country, now known as Knysna, Cape Province, about 1782 : and it was first named *Columba larvata* by Temminck in 1810.

It has an extensive distribution, given by Peters as " Mountain forests of eastern Africa from the interior of Kenya Colony (north to Mt. Elgon and Mt. Kenya), southward through Tanganyika Territory and Nyasaland to Transvaal, Natal and Cape Province ".

Although quite common in the wild state it has been imported into this country only at very infrequent intervals. The Zoological Society of London received its first examples on 18th July, 1892, when two were presented by W. M. Wormald. The Marquess of Tavistock, writing in 1914, says a consignment reached Woburn about seven years earlier. They were turned out, withstood a very severe winter without injury, and the following summer successfully reared young. They continued to breed and at the time of writing there were four or five pairs at liberty in the garden. An attempt at aviary breeding ended in disaster. Then in January, 1927, Cecil Webb brought over a large and important collection of East African birds for Gamages, included were some Lemon Doves. I believe Herbert Whitley had a pair at Primley in 1932. Apart from these I know of no other arrivals, but there must surely have been some.

This rarely imported South African dove is so little known to aviculturists that it may be as well to give a brief description of its appearance :—

" Forehead and front of the face white, becoming a metallic-pink (or green in some lights) on the crown, occiput, hind neck and upper portion of the mantle ; rest of the upper surface, including the wings and two central tail-feathers dark earthy-brown ; lateral tail-feathers with the basal two-thirds black, the apical third ashy ; below the chin and cheeks are greyish-white, the breast is pink and slightly

metallic, changing to cinnamon on the lower breast, abdomen and under tail-coverts ; under wing-coverts, axilliaries and sides of the body dark-brown. Iris, inner circle dusky, outer pink ; eyelids and bare skin round the eye pink ; bill black ; legs and feet dark-pink " (Sclater).

Length 10½–11 inches.

The female is slightly smaller, duller in colour, has less white on the face, and lacks much of the metallic sheen.

In the wild state, according to the various observers, this dove is confined to the forest and thick bush, and is seldom if ever found outside. It is shy and by no means easy to see in its gloomy surroundings, but can often be heard rustling among the fallen leaves as it seeks its food in the debris under trees.

C. F. M. Swynnerton had experience with this dove in captivity in South Africa and writes : " I have kept as many as thirty of these Doves in a large aviary at one time, and though they finally lose their excessive fear of a human being, they remain extremely nervous, a very slight alarm at night being sufficient to set the whole number in a senseless flutter. This disturbance, once started, is repeated at frequent intervals till morning, when two or three of the birds may be found on the ground in an exhausted condition. They are unusually gentle and sweet-tempered for Doves, and, were it not for this unfortunate nervousness, would make excellent pets."

The pair that has now successfully reared two young ones was imported by our member H. J. Indge. They arrived here on 12th June, 1958, and, as a temporary measure, were put in one of our Fruit Pigeon wattle-built aviaries. They were both extraordinarily tame, quite the tamest doves we have ever had, in fact the female was quite content to sit on one's hand ! They were naturally somewhat travel-stained and we had no thought of encouraging them to breed : but they had other ideas. Hanging under the shelter roof was a large, flat wire basket partially filled with hay and straw. To our surprise, within a few days they had taken possession and improvised a nest. Eggs were laid on 19th and 20th June, and sitting commenced from the laying of the second egg. Both birds took part in the incubation. Unfortunately this first attempt was not successful. It was noticed that during 2nd July neither bird was on the nest and it soon became apparent that they had deserted. To be on the safe side twenty-four hours were allowed to elapse before the eggs were removed for examination and measurement. The two creamy-white eggs measured 29·5 × 22·9 mm. and 29·4 × 23·5 mm. The former was addled, but the latter contained a well-developed chick which was still alive. As a very forlorn hope it was given to a pair of Barbary Doves with eggs about due to hatch. They took to it at once and such is the will to live it duly hatched. The chick appeared to be doing well, but during

the night of the third day it died. It is a little doubtful that any attempt had been made to feed it.

In the meantime, actually within twenty-four hours of desertion, the pair were prospecting an open-fronted box, 9 inches wide, 8 inches deep, and 8 inches high, hanging in the open flight. A rough nest was made and eggs were laid on 5th and 6th July: these hatched on the 20th and 21st, giving an incubation period of about fifteen days. There was a violent thunderstorm the night before the hatching of the first egg, but fortunately it had no adverse effect. The weather was cold and very wet, but both parents were assiduous and the two squabs throve amazingly. One young one left the nest, perhaps somewhat prematurely, but in any event several days before we expected, on 1st August. No heap of straw had been placed in readiness, but nevertheless it was not injured by the fall. The parents were very attentive, and lest their loyalties should be divided between one young one on the ground and one still in the nest, the latter was removed the following day and placed on a bed of straw on the ground. The weather continued to be cold and miserable, but the two young ones withstood it and were successfully reared to independence. The female again laid in the wire basket on 5th and 6th August.

The young bird has no white on the face, there is no metallic sheen, and the general colour above and below is brown, with narrow, rufous bars and tips to most of the feathers. In general it has a speckly appearance which the Marquess of Tavistock has described as " rather grouse-like ".

The Lemon Dove, in common with many other ground-feeding doves, is partly insectivorous. As staple food we give a mixture of wheat, kibbled maize, hemp, canary, white millet, and pannicum ; a good British finch mixture is also provided. A proprietary brand of soft-bill food and Fruit Pigeon fruit mixture are always available, but they are only very occasionally pecked over. Gentles and mealworms are given twice daily and are quickly eaten, with preference for the former.

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As described above, A. A. Prestwich has bred the Lemon Dove (*Aplopelia larvata larvata*). It is believed that this may be a first success.

Any member or reader knowing of a previous breeding of this species in Great Britain or Northern Ireland is requested to communicate at once with the Hon. Secretary.

* * *

BREEDING BARRABAND'S PARRAKEETS IN HOLLAND

By Dr. H. D. GROEN (Haren, Groningen, Holland)

With the prohibition of the importation into Holland of parrot-like birds from Australia, probably the last channel through which broadtails came to Europe has been closed. Some species of the broadtail family have been bred so freely that their survival is ensured for years, but there are others which were only imported on a small scale and bred on rare occasions. The Barraband's Parrakeet (*Polytelis swainsonii*) certainly belongs to the last group and its survival will be very difficult without the badly needed importation of fresh stock.

My birds did their bit towards this during the past season and they would certainly have not been to blame if things had gone wrong, as the following notes will show. The birds were imported from Australia in almost adult plumage early in 1955. For nearly three years they were in the possession of a friend of mine and were housed in an aviary measuring 12 feet in length, but as nothing happened it was thought that the aviary was too small. I therefore obtained the birds and placed them in a large aviary measuring 20 feet by 40 feet and 6 feet high in order to provide plenty of opportunity for flying exercise. They shared this aviary with other psittacine birds, mainly species of young Rosellas of the year, with which they lived in peace.

In February, 1958, the pair was placed in a separate aviary (5 feet by 33 feet) on the far end of which there was a roof of plastic transparent canvas. A natural hollow tree trunk 6 feet long was placed slantwise at an angle of 60 degrees in this shelter ; no special entrance hole was made but the birds could go in at the top where the trunk was cut. The female went in almost immediately and after a few days the first egg was laid. Control was possible through an inspection door near the bottom of the tree. Incubation was started at once and the bird sat so tightly that she did not move when I opened the inspection door. No mating, not even feeding, was ever seen, so I was not very hopeful, but in view of the fact that these birds are single-brooded and that there would not be a second chance if the first brood was unsuccessful I left her in peace. On looking through the inspection door three weeks later I found only one (infertile) egg, which I removed. The hen, however, appeared to be so broody that she continued brooding on an empty nest. After closing the entrance to the trunk with a board I found the hen sitting again the next day, after having opened the entrance herself. The log was then firmly closed by nailing the board over the entrance, and this obviously worried the hen very much.

In the meantime misfortune had occurred in the other aviaries.

Many Rosellas did not start brooding after laying their clutch of eggs. I estimated that my Barraband's hen, being a larger bird, might take care of at least ten Rosella eggs, and I wished I had let her continue to sit on her infertile egg. The board was removed and she went straight in. She stayed in the trunk for days, but unfortunately did not accept the eggs provided which were buried or broken. Realizing it was useless, the eggs were taken out and the log shut once more. A week later a broken Barraband's egg was found on the ground, obviously laid from the perch. The board was removed again at once and the next egg was laid where it should be, in the log. Incubation was started the same day and, expecting the same performance all over again as no matings were observed, I entrusted her with five Pennant's eggs. The next day four Golden-mantled Rosella eggs were added, making a total of ten eggs. On making a control observation a week later I found thirteen eggs and to my surprise I could see that the first Barraband's egg, which was marked, was fertile, so I thought it best to remove all the Rosella eggs again. Those that were fertile were divided between two pairs of Pale-headed Rosellas which had started breeding in the meantime. My Barraband's hen did not seem to be upset by all this disturbance and continued brooding, even laying a fifth egg. All five eggs proved fertile and the youngsters hatched after an incubation period of exactly twenty days. A month later the first young emerged from the nest, followed by the others within a week, and all five birds were very steady flyers from the moment they left the nest. Both male and female carried on feeding their offspring for quite a while. A somewhat peculiar habit, which has not been observed before, was that for at least a fortnight the young returned to roost in the tree trunk every evening.

It is difficult to sex juvenile Barraband's ; young males may have a yellowish wash on the cheeks or forehead, but in none of my birds was this visible. They all have red feathers on the legs, however, as in the old female, though I suppose in the males these will disappear later, as I can hardly believe that all my five young birds are females.

I think it is amazing that everything came out all right and that this happy ending was brought about in spite of all the interference and all the things I should not have done. It is gratifying to know that, in addition to my own breeding pair, there are at least three other breeders in Holland who possess healthy birds which every year rear their young. Likewise there are some odd birds here and there, and therefore with discretion and co-operation it might be possible to secure a good stock of unrelated birds for future breeding and really establish this very attractive species in our country.

* * *

THE TRADE IN AND TRANSPORT OF BIRDS

By PHYLLIS BARCLAY-SMITH (London, England)

The report in the *East African Standard* on 19th June, 1958, concerning the condition of a consignment of about 700 birds held up at Nairobi airport aroused a storm of indignation not only from all over the Colony but also from South Africa, Great Britain, Sweden, Denmark, and other countries of Europe. The birds were examined by Mr. John G. Williams, ornithologist of the Coryndon Museum ; he found many were already dead and estimated 50 per cent would be dead before they reached their destination. The birds were packed in tiered cages, each tier little more than 6 inches deep. Exact information regarding the species concerned is not available but it is known that there were weavers and waxbills and also a number of lovebirds including Fischer's and Masked (*Agapornis fischeri* and *A. personata*). Mr. Williams stated that the lovebirds removed from the cages had died of starvation and that they were also in immediate post-breeding condition and would have been feeding young at the time they were captured. The birds originated from Tanganyika and Northern Rhodesia and, it is stated, were destined for Birmingham, Amsterdam, and Lisbon. Information has been requested as to whom they were consigned but this has not yet come to hand. In view of the fact that the import of psittacine birds is prohibited both in the United Kingdom and Holland, it is presumed the lovebirds were consigned to Lisbon.

Immediate steps have been taken in Kenya aimed at stopping the mass exportation of indigenous birds and from the correspondence in the local press it would appear that there is widespread support for such measures.

The transport of birds under bad conditions cannot be too strongly deplored and all aviculturists will be as one in condemning such practices. Twenty years ago the International Committee for Bird Preservation took up the question of the condition of transport of birds by sea and were fortunate in securing the co-operation of Lloyds in this matter, who issued a statement to underwriters with regard to warranties to be required before insuring birds sent by boat. A series of suggested conditions was drawn up by an international committee which included among its members M. Jean Delacour, Mr. D. Seth-Smith, Mr. Alfred Ezra, Dr. Appelman, and Dr. J. Steinbacher, as follows :—

WARRANTIES REQUIRED FOR INSURANCE OF LIVE BIRDS TRANSPORTED BY SEA

(1) A veterinary certificate stating that the birds are healthy and not suffering from disease before shipment.

(2) For all journeys exceeding 48 hours each consignment of birds must be in charge of an experienced person, preferably travelling as a passenger. If entrusted to a member of the crew the authorities on board must grant him special permission to look after them, make sure that he has the necessary experience, and arrange that he has sufficient leisure to attend to them properly.

(3) Assurance must be given that there is suitable sheltered accommodation available on board the ship concerned, outside or inside, according to the climate.

(4) All live birds transported must be suitably caged in *box cages* open in front only. All cages must have either movable trays, cleaned every day, or wired or latticed bottoms, the latter compulsory for fruit-eating birds, waterfowl, and other water birds. Below the wired or latticed bottom must be a wooden one with a space between for easy cleaning.

(5) Perches must be sufficient in numbers to allow of each bird having adequate space to perch comfortably. For smaller birds (such as small finches and waxbills) a space of 2 inches each must be allowed and more for larger kinds according to size. Perches must never be placed above one another.

(6) Curtains of canvas or other material must be provided to hang when necessary over the wired or barred front of the cage.

Special Warranties for Certain Birds

Game and Ground Birds (such as pheasants, partridges, quails, tinamous, and pigeons) must have the roof of the cage carefully padded inside.

Ducks must have no water *inside* their boxes. The water must be placed outside the box in such a way as to allow the birds easily to get their heads through the bars to drink.

Cranes and other Large Waders, and also Ostrich-like Birds must be packed singly in cases made of full wood panels, except in front, high enough for the birds to stand comfortably. They must have a considerable amount of straw to stand on and this must always be kept wet and changed every day. Alternatively, the floor of the case may be of wire netting. Food and water in deep tins fixed on the outside, the birds feeding through a suitable opening in the front.

Flamingos can be packed up to six together in cases made of full wood panels, except in front, or of a wooden frame and canvas, high enough for the birds to stand comfortably. Straw and food as for cranes.

Penguins are very difficult to transport and only expert collectors should be allowed to take them on board with all the necessary accommodation, food, etc.

When transport by air became more common a further approach was made to Lloyds with regard to the conditions under which birds should be transported by air. These conditions were drawn up by the same sub-committee and are as follows :—

CONDITIONS REQUIRED FOR LIVE BIRDS TRANSPORTED BY AIR

(1) A veterinary certificate stating that the birds are healthy and not suffering from disease before shipment and, if possible, that they are feeding well.

(2) Live birds must not be left at airfields exposed to weather, or in darkness. Pending travel by air they must be kept under cover, but in the light. In case of delay of arrival, they must be fed and watered properly.

(3) Assurance must be given that there is suitable accommodation available on board the aircraft concerned. Birds, like all other live animals, must be kept in an even temperature and have sufficient light to feed. The cages must be tied securely to prevent sudden movement and food and water vessels must be so fixed in the cages as to prevent them falling out. If there is no pressure conditioning flying at high altitudes must be avoided.

(4) All live birds transported must be suitably caged in box cages made of light wood or cardboard. For pheasants, partridges, quails, tinamous, and pigeons the roof of the cage must be carefully padded inside.

(5) Perches must be sufficient in numbers to allow of each bird having adequate space to perch comfortably. For smaller birds (such as finches and waxbills) a space of 2 inches each must be allowed and more for larger kinds according to size. Perches must never be placed above one another.

(6) Curtains of canvas or other material must be provided to hang when necessary over the wired opening of the cage, if any.

The Secretary of Lloyds Underwriters' Association expressed every sympathy with the object but did not feel the insurance policies were the best means of dealing with this matter and suggested that the Ministry of Civil Aviation should be approached. The recommendations were therefore sent to the International Air Transport Association and they brought them to the attention of their member airlines.

There is no doubt that for many years birds transported by air were sent under good conditions and with proper care, and mortality was low. But the case reported from Nairobi is evidence that there has been great deterioration, and this brings up again not only the question of the conditions of the transport of birds, but the whole question of the trade.

The export of birds from tropical countries has grown to such enormous proportions that most severe regulations have been intro-

duced, which have inevitably adversely affected the genuine, serious aviculturist. Australia was the first country to introduce such legislation, principally in order to safeguard her parrots, and more recently South Africa has brought in new regulations. In a paper on the conservation of birds in the Province of the Cape of Good Hope, read at the Pan-African Ornithological Congress in Livingstone, in July, 1957, Dr. D. Hey, Director of Nature Conservation, stated: "I consider the biggest single evil to be the under-cover trade in wild birds which is far more extensive than is realized. A perusal of the European avicultural magazines will give some indication of the numbers of our birds which are sent to Europe each year. As long as dealers in these countries pay high prices for our birds, so long will the trade continue. The Cape, Transvaal, and Natal have banned the importation of wild birds and if the same steps could be taken in other countries it would strengthen our hand. One cannot overstress the importance of this malpractice. For every bird which lands in the cages of the aviculturist, twenty are killed, both directly and indirectly as a result of trapping and transport operations."

The new law prohibits the keeping of birds in captivity except under permit and regulates the conditions under which such birds can be kept. It also prohibits the import and export of any wild bird.

There are many people who strongly oppose the keeping of any wild animal in captivity—mammal, bird, or reptile—but this is a matter of opinion which I will not go into here. However, the fears expressed that mass exportation of birds from the continent of Africa will result in the loss of certain species cannot be gainsaid, and the wastage of birdlife involved cannot be too strongly deprecated. On the other hand, aviculture in the true sense is of æsthetic, scientific, and educational value and brings pleasure to thousands of people.

It is true that one law for the rich and another for the poor is manifestly unfair, but with regard to keeping birds in captivity the reverse is the case and there should be one law for the rich (in knowledge and the possibility of providing ideal conditions for their birds) and another for the poor (in knowledge of keeping birds, a proper attitude towards captive birds, and a lack of the sense of high responsibility they owe towards them). Moreover, aviculture has a valuable part to play in the conservation of vanishing species of birds in the world to-day. That great aviculturist, the late Dr. J. M. Derscheid, writing in 1939 of the numerous adverse factors endangering the existence of many species, in an article entitled "The Preservation of Waterfowl and Aviculture" (*A.M.*, Vol. IV, Nos. 3 and 9), stated: "It is a matter of stupefaction to me that in the face of these unsolvable problems, so few interested people think of turning their minds towards another way of preserving the various species of birds

threatened with extermination, viz. *maintaining them and increasing their numbers by methodical breeding in captivity.*" He also expressed the hope that adequate measures would be taken to ensure by artificial propagation the future of the Hawaiian Goose. Dr. Derscheid's hope was fulfilled by Peter Scott, who has demonstrated in a striking way the value of aviculture in preserving a disappearing species from complete destruction. Through Mr. Scott's efforts the world population of the Nene, or Hawaiian Goose, has been increased by sixty-eight birds bred in captivity, with the view of, in due course, reintroducing them to their wild native habitat in Hawaii, and the future of this species, which was on the verge of extinction, is now far more hopeful.

No aviculturist wishes to see birds exploited for the benefit of dealers, who only care for what financial gain they can get out of the transaction, and unless steps are taken to stop this aviculture as a whole will be seriously affected. The fact must be faced that control of collection, export, transport, and import of birds is urgently necessary. Those well-known collectors F. W. Shaw Mayer, C. S. Webb, the late Tom Goodwin, and the late Walter Goodfellow brought back their birds in perfect condition and the birds were acquired by those who could give them the best conditions possible. The day of the professional collector who could bring back his birds personally has gone, but with good conditions of air travel there is no reason why birds should not arrive as well as they did before. One well-known collector told me that he makes a strict rule never to dispatch a bird till it has settled down and learnt to feed properly, and if it does not take to captivity it is released. The same collector is a member of the Avicultural Society ; he sends his birds by an airline, the Transport Manager of which is also a member of the Society, to a dealer who is another member—the mortality is practically nil. But for this the price of the birds is inevitably high. I disagree with Dr. Hey when he deprecates the high prices paid by dealers for South African birds—the prices are not nearly high enough ; it is the quick turnover, with high mortality, of " cheap " birds which is the great danger.

* * *

Comments and suggestions are invited.—Ed.

* * *

BREEDING OF THE PURPLE FINCH

(*Carpodacus purpureus purpureus*)

By G. C. Lynch (Hounslow, Middlesex, England)

The following is a description of what I believe to be the first breeding of the North American Purple Finch. The parent birds came over about four years ago in a consignment which also included various thrushes, Juncos, House Finches, Fox Sparrows, Evening Grosbeaks, which I was lucky to obtain. As a matter of interest it was one of the hen Evening Grosbeaks that reared a youngster last year for which Mr. Claude Payne was awarded the Society's Medal. The House Finches also bred last year.

Towards the end of April I noticed the hen Purple Finch taking an interest in an open wooden box about 6 inches long and about 4 inches wide, hanging in the shelter of one of my outdoor aviaries. This aviary is 10 feet long by 6 feet wide and 8 ft. 6 in. high, with a shelter 3 feet from the ground that goes right across one end and has a permanent opening about 3 feet square in the centre. A number of privet bushes are squeezed in each side, making dense shelter and nesting sites for the birds, but with the disadvantage that it is nearly impossible to examine the nests without thoroughly disturbing the birds. In this aviary there are about eight or nine pairs of birds, including Juncos, House Finches, some British birds and a pair of Norwich canaries, the last named have some importance as will be seen later.

The box is situated at the back of the open part of the shelter, about 6 inches from the roof. The hen started gathering dried grasses, bents, and also some tow that I had thrown into the aviaries, and constructed a very cosy nest just over 3 inches in diameter right in the centre of the box. It was surrounded by small pieces of thin privet wood, but whether or not these were brought by the hen or were brought by other birds before she started to nest I am not certain, as I could not see into the box because of its position. The nest was very similar to that of a Greenfinch and had a number of feathers in its make-up but was not lined with them, and the hen finished it off with very soft grasses. I did not observe the cock assisting the hen in making the nest, but as I am away all day it is possible that he did help when I was not there.

The hen started to sit and about a fortnight after completing the nest she went off, so I quickly felt in it with my fingers and counted five eggs. I hurriedly withdrew and after I left the aviary the hen flew straight back. Twelve days later I saw the hen apparently feeding the young, but directly she saw me she sat tight. I estimate that hatching takes between twelve and fourteen days, but, of course, I might

still be a day out. The eggs were a greenish colour with coloured specks. I only had a glance of one.

I then supplied soaked mixed seed, egg food consisting of butchers' rusks, hard boiled egg and glucose D, and large quantities of chickweed, all of which I noticed the hen consuming. The cock did not eat the soft food but fed the hen on chickweed when she was away from the nest. I did not see him feed the young or the hen when on the nest.

Things appeared to be going quite well for over a week. Then we experienced what I can only describe as torrential rain—this continued for over forty-eight hours, and on the third morning when the rain had stopped, I noticed a dead bird near the bird-bath, which is about 7 or 8 feet from the nest. Upon further investigation I found three more birds around this bath. I then examined the nest and found it quite empty. I do not know what happened to the fifth egg as there was no trace of it or of another chick. How they came to be 7 feet from the nest I shall never know. The young birds were nine or ten days old, and I should not have thought they could have made their way all this distance on their own, especially in those weather conditions. This, as can well be imagined, left me very despondent. I left the nest alone hoping that perhaps the pair would have another try. In the meantime two of the British hens went to nest and so did the hen canary.

On 20th June I went to Switzerland for a holiday. The hen canary, which had nested in a basket in the open part of the flight, had just hatched some young, so I made arrangements for the rearing food already described to be continued for their benefit.

On the first day back from my holiday I saw a fully fledged bird—my attention was first drawn to it because of the two extremely large tufts of white, hair-like feathers jutting out on each side of the head. Whilst I was watching this in amazement the hen and cock Purple Finch fed it. It appeared to be quite strong on the wing and flew to different perches without hesitation. I entered the aviary and then discovered—what I should have found about five weeks earlier—an entirely new nest built in a very thick part of the privet only a few inches from the top of the shelter. The main structure was built woven round the twigs and the lining was similar to the nest in the box. It was cleverly concealed, but had I not been watching the box nest I think I should have seen it. My own hands were too large to force in the nest from above so my wife did so. She informed me that the nest was completely empty ; so how many eggs were laid and what happened to them I cannot say.

The young bird is one of the most vigorous and confident young birds I have ever bred and has been no trouble. When it first came from the nest its back plumage and wings and tail were similar to those of a Linnet, but the whole of the breast and under parts were like that

of a hen Siskin—very light in colour and studded with dark flecks. At the time of writing the bird is about eight weeks old, is entirely independent, and very vigorous. The pencilling on the back is of a rich, dark hue, the under parts remind me very much of a hen Amethyst Starling and the wing butts have a suggestion of a reddish colour on them. The young bird is nearly the size of its parents and I believe it to be a cock. At this stage it is, in my opinion, prettier than either of the parents. The cock, by the way, seems to be less colourful every moult.

I have described the failure fully because I cannot give much detail of the success.

There is little doubt that but for the fact that the rearing food was placed in the aviary each day for the canary, the Purple Finch would not have been reared by its parents.

As described above, G. C. Lynch has bred the Purple Finch (*Carpodacus purpureus purpureus*). It is believed that this may be a first success. Any member or reader knowing of a previous breeding of this species in Great Britain or Northern Ireland is requested to communicate at once with the Hon. Secretary.

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NOTES ON THE LATE MR. F. H. RUDKIN'S COLLECTION AT BARDSDALE, CALIFORNIA

By †Sydney Porter

(*Concluded from p. 21*)

With few exceptions, Mr. Rudkin and his son had examples of most of the Australian cockatoos and parrakeets. At the Ranch were seven pairs of Mealy Rosellas, and very fine birds they were, too. This was a favourite species with Mr. Rudkin, Senr., and he had kept them for many years in England before coming to the U.S.A. There was a Mealy × Rosella hybrid, a most beautiful bird, mated to a normal, the young differed very little from the pure bred Mealy.

Mr. Rudkin had a good stock of my favourite Australian parrakeet, the Elegant, of which there were many breeding pairs. These cannot be bred on the colony system ; if tried the result is that a good proportion of the young are degenerate specimens. The Elegants at the Ranch were a very good strain and prolific breeders ; one pair producing nine young ones in the season. Nearly all the birds had either eggs or young ones in the nest whilst I was there.

Another *Neophema* parakeet was the Turquoisine. I noticed a male bird which had the whole of the breast a shade of deep, rich orange ; I was told that this was a very old one. Besides this, were two fine pairs which Mr. Rudkin had bred from birds originally sent out by the late Duke of Bedford, then the Marquess of Tavistock, many

years before the Second World War when the species was threatened by extinction and there seemed a chance to save it by breeding it in a more favourable climate than that of these Islands.

During the first eight years many young ones were reared, but unfortunately one of the fumigations of the surrounding orange orchards killed eight or ten of the breeding birds, only one pair being left. Since then the stock had never been made up again. The one pair that were left reared young every other year.

Mr. Rudkin found that Turquoisine × Elegant hybrids were sterile; this is surprising considering how closely related the two species are. Another *Neophema* I noticed was the Scarlet-chested, two young birds which had been bred by Mr. Harold Rudkin. Of Bourkes, there were several finely coloured pairs, but though they bred they could not be classed as prolific.

One wonders why the exquisite little *Neophema* or Grass Parrakeets, the most charming of the whole parrot family, should, like the equally delightful *Cyanorhamphus* parrakeets from New Zealand, nearly always give, when first acquired, the appearance of being very fecund, only through the succeeding years gradually to die out. This is so even in California, with one or two rare exceptions, which has ideal conditions and climate for parrakeet breeding. Having kept five different species myself, I have come to the conclusion that it requires something more than good bird keeping to keep the birds going for a long period. Maybe they are birds which outside Australia have some kind of allergy to districts and soil. It is strange, considering they are so closely related to the most prolific of all parrot-like birds, the ubiquitous Budgerigar!

Another lovely Australian parrakeet possessed by Mr. Rudkin was the Pileated or Red-capped, a gorgeous bird with strange and lovely colouring, which has always fascinated me, but which I have never been able to obtain. I am sure it would be worth a special trip to Australia to get it! Though, strange to say, I never saw one in Australia when I went there, this, however, was made up for by seeing quite a number in California. A good few aviculturists had them, but the birds did not seem very prolific. Mr. Rudkin was a great admirer of this species and was most successful in rearing them. At one time he had no less than seven breeding pairs, but at the time I was there he had only one pair and an odd hen; the pair, however, had a nest of young ones. The cock was a beauty and spoke quite a few words of English, a rare accomplishment for this species.

If aviculturists were successful with parrot-like birds in California, that was as nothing compared to their success with pheasants. So prolific were pheasants in that favoured climate that the chief difficulty of the pheasant breeders was to dispose of their surplus stock. Quite a few owners of pheasant farms, lured to come out to the Golden West

and invest their capital in a breeding stock of these birds, had been sadly disillusioned, and so saturated did the market become that many breeders had literally to live off their products. I went to one place where it seemed a matter of course to serve up roast Firebacks for the mid-day meal !

The only pheasants which did not seem to flourish were Tragopans, White Crossoptilons, and Argus.

Needless to say, pheasants thrived exceedingly on the Ranch and one saw many old favourites there, including Swinhoe's, Germain's Peacock, Elliott's, Reeves's, Impeyans, etc., but none seemed so prolific as the white and melanistic Ringnecks. Whether the clearer air and the more brilliant sunshine of California showed the plumage of the latter up to better advantage or whether the birds were a very fine strain, I do not know, but they struck me as being far finer than any I had seen in Europe. They were truly beautiful and their body feathers would have done credit to one of the more brilliant Glossy Starlings. As easy to rear as domestic poultry, I was told that there was little or no demand for the birds as ornamental inhabitants of aviaries, so they were sold more or less as table birds. By what I remember the hens were exceptionally light in colour.

The white strain of the Common Pheasant looked exceptionally immaculate, again due to the dirt free air of that glamorous land. These too, were hard to dispose of and suffered a similar fate to the melanistic.

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COUNCIL MEETING

A Council Meeting was held on 8th September, 1958, in the Council Room, Zoological Society of London.

* * *

Officers for 1959

There were the following retirements and appointments :—

Council : Mr. B. H. Dulanty, Mr. D. H. S. Risdon, and Mr. Peter Scott retired by rotation.

Mr. F. T. Jones, Mr. W. R. Partridge, and Mr. P. L. Wayre were elected to fill the vacancies.

Editor : Miss P. Barclay-Smith retired according to rule, and being eligible was re-elected—for a fifth term of office.

Hon. Secretary-Treasurer : Mr. A. A. Prestwich retired according to rule and being eligible was re-elected—for a third term of office.

* * *

Mr. G. Beever and Mr. G. B. Stratton, M.B.E., F.Z.S., A.L.S., were elected Hon. Life Members.

Arthur A. Prestwich,
Hon. Secretary.

TANAGERS AND SUGAR BIRDS FROM COSTA RICA AND COLOMBIA

By J. DELACOUR (Los Angeles, California, U.S.A.)

Tanagers and Sugar Birds, those gorgeously coloured, fruit-eating finches from the Western Hemisphere, have long been favourites with aviculturists. A long established custom to consider them as belonging to two separate families because Sugar Birds have a longer, slenderer, more curved bill, has recently been proved wrong by anatomical studies as well as by observation of their life habits. The closely similar colour pattern of several species in both groups also indicates their close relationship. I, personally consider the majority of Sugar Birds are true Tanagers. A few are akin to the American Warblers (*Parulidae*), which are themselves linked to the Tanagers by a number of intermediates, so that the affinity of all these birds is great indeed.

These beautiful birds are not difficult to care for if one remembers that they are messy, like all fruit-eaters, and must be accommodated accordingly. Also, bananas are poison to all the smaller and more delicate species unless it is crushed and mixed with pound cake, which then constitutes an excellent food. This applies equally to Manakins and Flower-peckers. They do well in cages as long as they are kept very clean, and it is a good precaution to have a grating at the bottom of the cage, one or two inches above the tray, so that the birds cannot pick up stale food or droppings, which some are prone to do. Most Tanagers are not hardy in cold countries and must have heat during the winter. In southern California, however, all species can stay outdoors the year round and they stand perfectly well a few white frosts which occasionally occur during the colder winters.

Many beautiful species which had never or seldom reached European or American aviaries before have now come to us from Costa Rica and Colombia. Air transportation enables them to arrive within a day. They suffer little from the trip and losses are very slight. I keep these birds in large, planted aviaries, with proper shelter from wind and rain. I feed them as follows : crushed banana and pound cake ; crushed pound cake and hard-boiled egg, including the shell ; a mixture of soaked dry biscuit and shredded raw meat, which they little touch, and various sweet fruit : pear, apple, grapes, soaked rasins, orange, and papaya. A number of them relish lettuce, and to my surprise, many eat a good deal of the millet and canary seed provided for finches which share their aviaries. They live perfectly well on such a diet, as also do some Manakins. Some would nest if they were not so overcrowded, but so far, Yellow-winged Sugar Birds only have managed to rear young.

Tanagers and Sugar Birds remain fairly well at peace with one another, even while they are in breeding condition when, however, some pairs are inclined to bully others. The larger Tanagers are more inclined to fight, and it is sometimes difficult to keep together several pairs of the same or of closely allied species. They never bother other birds such as Waxbills, Finches, Buntings, Manakins, Fruit-Suckers, Shamas, Loo-Choo and Japanese Robins, Pittas, Quails, and Doves which share their flights. But care must be taken when new specimens are introduced, and I have had to remove some saucy old birds to avoid persecution of new inmates. All goes well, as a rule, after a few days of seclusion of the bullies.

Up to the last war mostly east Brazilian Tanagers were readily available, such as Superb, Festive, Tricoloured, and Scarlet. Others came only exceptionally. Eastern South American species are among the most beautiful, but Central America and the Pacific countries, particularly the Andes in Colombia, Ecuador, and Peru, have especially gorgeous and even more numerous species, which only recently have been sent out.

The following species are now represented in my Los Angeles collection :

Golden-browed Chlorophonia (*Chlorophonia callophrys*)—A large, short-tailed Tanager from the mountain forests of Costa Rica and Panama. The adult male has golden yellow eyebrows and forehead, metallic lilac-blue crown, nape and ring round the hind neck, a blackish brown necklace on the upper breast, yellow breast and abdomen ; the rest of the plumage is a rich green ; females, and young males until two years old, lack most of the yellow. This bird is twice as large as its better known South American relatives. It is extremely beautiful and lives well if properly fed. Quite active, it utters almost incessantly a soft trumpet-like note.

Scrub Euphonia (*Tanagra affinis*)—Very small, with a yellow patch on the forehead ; upper parts, neck and throat purplish black ; some white in the tail ; underparts golden yellow ; female greenish olive. Found from Mexico to Costa Rica.

Bonaparte's Euphonia (*Tanagra lauta*)—Larger, the male with the throat yellow as the rest of the underparts. Southern Mexico to Panama.

The lovely Callistes are highly diversified :

Speckled Tanager (*Tangara chrysophrys*)—A pretty species yellowish green above and on the flanks, pale grey on the throat and breast, spotted all over with black, the markings larger below than above ; short yellow lines above and below the eyes ; lores black. Graceful in shape and sexes alike as all Callistes. The Central American race is

the prettiest ; the species extends to Venezuela, Trinidad, Colombia, and Ecuador.

SPANGLE-CHEEKED TANAGER (*Tangara dowi*)—A peculiar, dark species proper to the high mountains of Costa Rica and western Panama. Rather large. Head and throat black ; cheeks and neck black spangled with light green ; mantle black ; rump silvery green ; a small reddish spot on the middle of the crown ; wings and tail black, the feathers bordered with rich dark blue ; breast mottled black and pale green, rest of underparts tawny brown.

BLACK-EARED TANAGER (*Tangara pardusakii*)—A large Calliste from Colombia, extending to Peru (*lunigera*). Forehead and cheeks orange red ; crown and nape golden yellow ; throat, chin, lores, a ring round the eyes and large ear spots black, like the upper back, mantle, wings, and tail ; lower back, rump and underparts pale silvery green with lilac reflections, tinged with buff on the breast and fawn on the belly and vent. A wonderful bird, which needs special care when it first arrives, but does well later on.

SILVER-THROATED TANAGER (*Tangara icterocephala*)—Crown and cheeks yellow, the lores, chin, a line below the eye and a patch on the ears black ; throat light grey ; mantle yellow with elongated black spots ; back and underparts yellow ; wings and tail feathers black with green margins. A beautiful bird from Costa Rica, Panama, and north-western Colombia, closely allied to the following :

GOLDEN TANAGER (*Tangara arthus aurulenta*)—Much like the Silver-throated, but a much deeper, more golden yellow all over including the throat ; wings and tail feathers margined with yellow. A subspecies of *T. arthus* from Venezuela, which differs in its rich brown underparts. It lives well in captivity and it has bred repeatedly in Mr. A. H. Isenberg's greenhouse the last two years.

YELLOW-CROWNED TANAGER (*Tangara xanthocephala venusta*)—A rather small, very beautiful species found from Colombia to Bolivia. Crown and cheeks golden yellow ; forehead, lores, a ring round the eyes, chin, throat, and nuchal collar black ; mantle, wings, and tail black, the feathers broadly bordered with bluish green ; back, rump, breast, and sides silky bluish green ; belly and vent fawn.

BLUE-NECKED TANAGER (*Tangara cyanicollis coeruleucephala*)—Another small species. Head and neck brilliant blue, the lores and chin black ; mantle and underparts black ; lower back, rump, and shoulders light silvery green ; tail and wing feathers black bordered with light green. A very pretty bird, which has bred successfully in Mrs. M. Erlanger's aviaries in New Jersey.

MRS. WILSON'S TANAGER (*Tangara nigro-cincta fanny*)—The species extends from Guatemala to Bolivia. Forehead, chin, and lores black, face and forecrown violet blue passing to light blue ; rest of head and

neck metallic greenish buff, coppery on the throat ; breast and mantle black ; shoulders shiny violet and sky blue ; lower back and rump sky blue, sides indigo blue ; flanks sky blue ; belly white ; tail and wing feathers black bordered with light green. A magnificent Calliste, strong and easy to keep.

Black and Green Tanager (*Tangara nigroviridis*)—A small, rather weak, but pretty species. Velvety black, spotted and speckled all over with shiny greenish blue, the forehead, chin, and face black ; wing and tail feathers black bordered with blue ; the head and rump almost solid blue.

Occurs from Colombia and Venezuela to Bolivia.

Bay-headed Tanager (*Tangara gyrola*)—This species extends from Costa Rica to the Amazon and Bolivia and is very variable. The Costa Rican form (*bangsi*) is the prettiest. Contrary to the preceding species, its plumage is neither shiny nor silky, but the colours are very bright. Head rich chestnut ; a narrow yellow nuchal collar ; mantle, wings, and tail bright green ; lower back and underparts peacock blue, the vent green ; thighs light brown. It lives at low elevation.

Rufous-crowned Tanager (*Tangara cayana*)—A rather dull-plumaged, common Tanager, widespread from Colombia to Brazil and Bolivia. Crown rufous ; face black ; mantle, back, and underparts greyish green, passing to buffy brown on the vent ; wing and tail feathers broadly bordered with silvery green. A strong, hardy species.

Of the larger species of Tanagers I have the Scarlet, the Crimson-backed (*R. dimidiatus*), the Yellow-backed (*R. icteronatus*) and Red-backed (*R. passerini*) ; males will fight and are better kept separate ; Blue Tanagers (*Thraupis verescens cana*) which breed easily, and three specimens of the far prettier form from the Western Amazon Valley (*T. v. coelestis*), which had not previously come ; it has the head, neck, breast, and wings light, but bright mauvish blue and several large, white bars on the wings ; also, the beautiful Blue-winged Mountain Tanager (*Compsocoma flavinucha cyanoptera*) with golden yellow nape, hind neck and lower parts, velvety black head and upper parts, the shoulders and the borders of the tail and wing feathers silky, deep blue. It is fairly insectivorous species, which also consumes a lot of lettuce and some seeds as well as fruit.

Besides the well-known Yellow-winged, Purple, Blue, and Black-headed Sugar Birds, I have two Scarlet-thighed Sugar Birds (*Dacnis venusta*). This fine species is found from Costa Rica to Ecuador. It resembles the well-known Blue (*Dacnis cayana*) in size and shape, but the male is velvety black and blue, the latter colour, bright and silky, extending to the crown, the ear-coverts, the back and sides of the neck, the shoulders, the back and the rump ; the thighs are vermillion red ;

the female is dull green with a blue rump, a grey throat and an ochraceous buff belly. Young males resemble the females, and take the full plumage in the second year. My presumed female is now moulting into a beautiful male dress !

All these Tanagers and Sugar Birds moving swiftly among the tropical foliage, which I can watch from my sitting-room, are a constant source of interest.

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LONDON ZOO NOTES

By J. J. YEALLAND

A collection of Humming Birds, presented by H.E. the Brazilian Ambassador, was brought to London early in July by Dr. Augusto Ruschi. The birds came from Dr. Ruschi's collection—some possibly from his garden, for, as we saw in a film that he showed us, and as Jean Delacour has already explained in the Magazine, very many of these birds are about there, coming to feed from the hanging bottles of sugar or honey and water that are placed around the veranda. David Attenborough and Charles Lagus, now on their " Zoo Quest " to Paraguay, hope to call at Santa Teresa in order to film this remarkable sight.

Three of the species are new to the Collection ; they are the Brazilian Ruby (*Clytolaema rubricauda*), the Amethyst (*Calliphlox amethystinus*) and the Brazilian Wood Nymph (*Thalurania glaucopis*). Pied Jacobin, Sombre, Short-billed Emerald, Frilled Coquette, Swallow-tailed and White-throated were also among this fine collection.

A White-capped Redstart and a pair of Diamond Sparrows have been presented by Mr. G. H. Newmark, and a lesser Short-toed Lark by Mrs. C. M. Everitt.

A Greater Sulphur-crested Cockatoo has been hatched and there are various young Gulls, including the Australian Silver Gull. Common Peafowl, various pheasants, Peach-faced, and Masked Lovebirds, Quaker Parrakeets, Crested Pigeons, and another Superb Glossy Starling have also been bred.

Three eggs laid by the King Penguins were all infertile and so were two laid by Sarus Cranes. A Red-breasted gosling did not survive and the Snowy Owls produced nothing from their two clutches.

* * *

BRITISH AVICULTURISTS' CLUB

The sixty-third meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, South Kensington, on Monday, 8th September, 1958, following a dinner at 7 p.m.

Chairman : D. Seth-Smith.

Members of the Club : Miss J. Barnes, A. W. Bolton, Miss K. Bonner, W. Brain, W. D. Cummings, J. O. D'eath, Sqn.-Ldr. C. Everitt, Miss R. Ezra, Miss E. G. Ganner, Lord Gerard, Dr. R. Gottlieb, L. W. Hill, Miss S. I. Hobday, Dr. J. R. Hodges, F. E. B. Johnson, M. Kendall, Miss E. M. Knobel, Miss M. H. Knobel-Harman, Dr. F. B. Lake, A. J. Lambert, A. L. Leighton, P. H. Maxwell, F. Mosford, K. A. Norris, A. A. Prestwich, R. C. J. Sawyer, J. Thorpe, E. A. Tickle, E. N. T. Vane, C. H. Wastell, Mrs. C. H. Wastell, J. G. Woodnutt.

Guests of the Club : Dr. and Mrs. W. E. Hurlburt.

Members of the Club, 33 ; guests, 14 ; total, 47.

K. A. Norris showed a selection of his hand-coloured slides to illustrate " British Birds at Home and Abroad ". A wide variety of subjects was dealt with : an exceptionally tame pair of Robins in Norris's own garden ; Bee-eaters which nested in Sussex last year ; Avocets which have established a breeding colony after an absence of a hundred years ; the use of light and shade in plumage to aid aggressive and defensive action illustrated by a series of slides of the Short-eared Owl ; the special adornment developed by males of polygamous species, by photographs of Ruffs on a " display-ground " in Holland ; use of special warning cry developed by Avocet on approach of Black-headed Gulls ; temperature control during incubation by Purple Heron ; and the modification in the structure of the primary feathers of owls to ensure silent flight, this illustrated by a " self-portrait " of a Barn Owl : altogether over thirty species were shown.

The slides were of the very high standard associated with Kenneth Norris and members obviously appreciated the skill and patience required to obtain these very exceptional results. The photographs had been taken during the past twenty-five years, both in this country and throughout Europe.

Further meetings and dinners during the 1958–59 session have been arranged for the following dates :

10th November, 1958,
12th January, 1959,
9th March, 1959.

ARTHUR A. PRESTWICH,
Hon. Secretary.

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NEWS AND VIEWS

Three newly hatched Whooping Crane chicks have been spotted in nests by Canadian Government wild-life officers flying over Wood Buffalo Park, a reserve on the borders of Alberta and the North-West Territories—the only known breeding ground of these Cranes.

* * *

Vice-President Jean Delacour reports: "I have reared two *Forpus coelestis* and a pair is at present incubating." This is possibly a world first success for the Celestial or Lesson's Parrotlet, except in their native Peru, where they are said to breed freely in either breeding-cage or aviary.

* * *

Breeding reports: Colonel H. B. Finch, Chinese or Japanese Greenfinch (*Chloris sinica*), two reared. This is possibly the first success since W. Shore-Baily's in 1915. Walther Langberg, Copenhagen, three Many-coloured, three Stanleys, seven Splendids, three Bourkes, three Nyasas; four Harlequin Quail hatched. K. A. Norris, Mountain Bluebird, three broods reared; Red-winged Blackbird, first of a nest of five young out in the flight. T. R. Holmes Watkins, Kings, Princess of Wales, Pileated, Pennants, Browns, and Splendids reared.

* * *

Dr. S. B. Kendall writes: "I have to report two excellent Citron-crests fledged (what a wonderful pair the adults are) and one Plum-head just out of the nest (may it be a better one than in previous years). I have also bred three African Green Singing Finch × Angola Grey (Black-throated Canary) hybrids—no particular credit in this, but it may be the first time." There does not, in fact, appear to be a previous record.

* * *

The latest news from C. af Enehjelm is: Yellow-rumped and Chestnut-breasted Mannikins have reared three and two respectively; Lavender Finches, three; Green Avadavats three in the first nest, two in the second, and nesting for the third time; Crimson-rumped Waxbills (*E. rhodopyga*) with well-grown young in the nest. One Three-coloured Parrot-Finch has left the nest: some Long-tailed, Masked, and Parson Finches have also been reared. All these birds are housed in indoor aviaries, otherwise the weather would have prevented many of the breeding attempts being brought to a successful conclusion in outdoor aviaries.

* * *

Aviculture in New Zealand is now at a very low ebb. W. G. Baird writes: "Bird-keeping out here is at present in the doldrums, with a total ban on importations. The only birds readily available are Eastern Rosellas, Cockatiels, Budgerigars, and Zebra Finches;

any other birds are very hard to come by. And so, for anyone wishing to start in aviculture the scope is somewhat limited. At present there is little likelihood of the ban being lifted, but the Federation of Cage Bird Clubs always has the matter in hand, so perhaps one day the pleas of bird-keepers will fall on sympathetic ears. We certainly all hope so."

* * *

Dr. K. G. Rothwell's results to date : five Stanleys, unfortunately two died before it was discovered that they were not being fed by the hen—double brooded this year ; four Elegants ; five Bourkes ; four Turquoisines, from a pair imported into this country as recently as May this year ; one Golden-mantled Rosella. A hen Pennant mated to a cock Adelaide laid about twenty eggs. Two were placed under a hen Golden-mantled and one young hybrid was hatched, but the hen failed to feed it and it died. A cock Pennant × Golden-mantled hybrid mated with a hen Golden-mantled produced one young one exactly like a Golden-mantled. Dr. Rothwell says " the important feature being that it retained the blue cheek patchings Mendelian dormant of its father ". Kings very late to nest but sitting steadily.

* * *

J. C. Laidley reports an interesting event in his aviaries. " I have a Golden-mantled Rosella hen, a complete ' dud '. I bought her without seeing her ; she could not and still cannot fly, is always moulting and looks like a ruffled hedgehog. I found her sitting in a corner looking mopey, and thinking she might want to lay I put her in a nest-box. She did in fact lay, a thing rather like a sausage. I put her in the box two days later, same reason, again she laid, this time a normal egg. She brooded, hatched, and reared an A.I. specimen. When she came off once or twice after hatching she bathed and I had to put her in again. Just one of those birds ! "

* * *

Fearing the demands of the millinery trade would cause the total extermination of the Greater Bird of Paradise, Sir William Ingram, Bart., purchased the island of Little Tobago, in the British West Indies, and commissioned the late W. J. C. Frost to collect live birds in the Aru Islands, New Guinea. Forty-eight were set free on the island at the end of September, 1909.

Now, some fifty years later, Dr. E. Thomas Gilliard, Associate Curator of Birds, American Museum of Natural History, and Leader, National Geographic Society—American Museum of Natural History, Little Tobago Expedition, has, with Frederick Kent Truslow, secured the first camera record of the courtship display of this bird. Dr. Gilliard calculates the present population numbers about thirty-five, possibly the maximum number the mile-long island can support. Readers

interested in this truly amazing experiment will find many references in the MAGAZINE, 1911–1922, and the latest report in the *National Geographic Magazine*, September, 1958.

* * *

Lloyd B. Thompson, Vancouver, reports: "My birds have not done too well this year, although the weather for the past twelve months has been ideal. The winter was so mild we had no snow and very little frost. The birds went to nest early, but there were a lot of clear eggs, and with species that nest only once that means a zero for the year. Plum-heads were one of the disappointments, laying clear eggs, as did the lutino Ring-necked hen and her two-year-old daughter. Pennants and Stanleys did not go to nest.

The Turquoisines had troubles, but raised five good young ones. The Bourkes reared one and have two in the nest. The Lovebirds did well and Masked, normal and blue, Peach-faced, Fischer's, Nyasa, and Madagascar all reared young. A few Diamond and Pygmy Doves were reared. Zebra Finches in most of the rarer varieties were reared, as well as Gouldians, Cut-throats, and Golden-breasted Waxbills, also three Silverbill—Society Finch crosses."

* * *

All Members are urged to continue to seek additional candidates suitable for election during the coming year, so that the threat of increased subscriptions to offset the steeply rising costs of printing and administration may continue to be withstood.

A. A. P.

* * *

REVIEW

BIRD HYBRIDS. A Check-List with Bibliography. By ANNIE P. GRAY. Technical Communication No. 13 of the Commonwealth Bureau of Animal Breeding and Genetics. Edinburgh. Commonwealth Agricultural Bureaux, Farnham Royal, Bucks, 1958. Price 50*s*.

There is a certain amount of prejudice against hybrids by some individuals, as being against nature, and to those who believe in the fixity of species it is disturbing to find the ease with which many birds mate with a different species and even produce fertile offspring. It has even become necessary to revise the common definition of a species in view of the results of hybridization in such groups as ducks and geese, pheasants and the finches. This annotated compilation is primarily a work of reference and attempts to be a reliable guide to the many bird hybrids recorded in the literature. Records of unsuccessful attempts at hybridization are also included. The crosses are grouped within families and are arranged alphabetically under the

scientific names of the species involved. Under each species is given a full list of those with which it is said to have hybridized, or with which it has been attempted. Whenever possible the direction of the cross and the degree of fertility of the first generation hybrids are also indicated.

The extent to which hybridization can take place is very surprising to those unfamiliar with the subject. For example, the Mallard is said to have been crossed with at least fifty different species of ducks and geese and in many instances the cross is in both directions and fertile hybrids are not uncommon. The domestic fowl, including both *Gallus gallus* and *G. domesticus*, has been crossed with at least forty other species including the turkey, but contrary to popular belief it is stated that there are no authentic records of this particular hybrid reaching the adult stage. In controlled experiments the embryos invariably died before hatching.

The Blue-fronted Parrot, *Amazona aestiva*, the Crimson-winged Parrakeet, *Aprosmictus e. erythropterus*, and Barnard's Parrakeet, *Barnardius zonarius barnardi*, are all species with catholic tastes, and by a curious coincidence each has been crossed with seven other species of parrot or parrakeet.

The finches include several species which hybridize with other kinds of birds, by far the best known example being the Canary, *Serinus canarius*, which has been crossed with more than sixty different species, but the hybrids are nearly always sterile.

The book ends with a bibliography containing well over 1,900 titles and there is an index of scientific and vernacular names. It is unfortunate, however, that the author was not a little more critical, for some of the records of crosses seem to have little more foundation than the two birds being seen together. A much more serious defect is the incompleteness of the bibliography which in spite of its 1,900 titles omits well-known publications dealing specifically with this subject. For example there is no mention of *Records of Parrots Bred in Captivity*, Parts V, VI, and VII, by A. A. Prestwich, published in 1952 and 1954, nor of the same author's *Records of Birds of Prey Bred in Captivity*, 1950 and 1955, to mention only a few examples.

E. H.

* * *

CORRESPONDENCE

PUGNACITY IN SUNBIRDS

I have never really gone in for sunbirds, much as I admire them, as I have always been rather put off by the fact that their pugnacity renders it impossible to keep a number—or even a pair, except just in the breeding season—together. I had not, however, realized quite how pugnacious they can be.

Recently I obtained a pair of Malachite Sunbirds and thought I would try them together in what was quite a large aviary for such small birds. But the cock chased the hen about so badly that he had to be taken out at once.

He was then put into a considerably larger aviary where he looked very tiny beside his companions—namely, a pair each of Ashy Doves, Scaly Doves, Yellow-billed Cardinals, and Black-crested Yellow Bulbuls. In fact I was rather afraid the latter might bully him.

I need not have worried, however, for he quickly proceeded to rule the roost himself. If one of the Bulbuls has the audacity to come and sit near him it is instantly chased away and round and round the aviary amid a volley of angry squeakings from its diminutive pursuer. The other day one of the doves alighted beside the Sunbird and was put to flight at once, nearly getting one of its tail feathers pulled out in the process. I was afraid I should have to remove him, but he never molests anything so long as the privacy of the perch he happens to be sitting on is respected, and his companions are learning to do this.

Despite his being such a termagant, he is a most attractive and extremely intelligent little bird, as well as an industrious songster, and I can quite imagine that a male of this species in a cage would make a delightful pet, and quickly become tame.

BRAMBLETYE,
KESTON,
KENT.

EDWARD J. BOOSEY.

THE LOSS OF RED COLOUR BY BIRDS IN CAPTIVITY

Mr. Boosey's lament on the loss of red in captive birds is, I am sure, shared by many. I think in some cases it is food. Mr. Boosey remarks that the Red-vented Bulbul does not lose its red in captivity, but when it is fed largely on gram flour or sattoo another change occurs; the red feathers under the tail become edged with black and indeed the whole plumage of the bird seems to become darker. Yet when I have moulted a bird out on more natural foods, namely fruit, chopped-up lettuce, and boiled carrot, of which it is very fond, the red moults through a pure colour and the lovely mottling on the plumage reappears.

In the case of another Bulbul, the White-cheeked Bulbul of Sind, I have noticed that when the bird is fed and moulted through on the usual food in captivity, namely banana, boiled rice and boiled yam or sweet potato, the deep saffron of the wild bird moults through as a lemon-yellow, but when I fed my bird largely on dates, the deep saffron was retained. The same occurs with the White-cheeked Bulbul of Kashmir, though another food must take the place of the date. White-cheeked Bulbuls in Sind are particularly fond of the deep green leaves of the Tamarisk.

I really began this letter however, with the intention of drawing Mr. Boosey's attention to a letter by J. Alastair Anderson in a back number of the AVICULTURAL MAGAZINE, on page 63 of the 1938 volume. This letter refers to Vitamin A as restoring the colour in a Nonpareil Bunting. Recently there was an article on the Red Cock of the Rock (AVICULTURAL MAGAZINE, 1955, page 146) and so far as I remember the writer described how he kept the colour by certain foods and when the bird was looked after by another person the colour faded but was restored when the proper food was given.

Many years ago I wrote a letter to our Magazine (1939, p. 110) about the loss and retention or restoration of colour in the Avadavat. In a book called *Birds I have Known* by Arthur Beavan, published by Fisher Unwin in the year MCMV (work that one out!) which I had as a boy, the author describes on page 252 how a pet Linnet which he had reared, when three years old got the lovely rich red of the wild

cock. I believe also there was a letter in *Cage Birds* saying the red of the Redpoll could be retained if the bird was kept in an outdoor aviary and was given the berries of the Mountain Ash to eat.

I have noticed that with Purple Sunbirds the orange tuft of side feathers fades to a yellow in captivity. Lord Tavistock wrote in our Magazine (1932, page 256) that the red on a Sunbird was retained in a bird that escaped and fed on wild foods. I wrote a letter to the Magazine (1928, page 96) asking how the Chinese retained the red in the Rubythroat and Monsieur Delacour replied (1928, page 167) that the Chinese fed raw minced meat and insects to the birds. Perhaps the Chinese have this and other secrets?

In *Cage Birds* (14th Aug., 1958) in "Answers to Correspondents" on a question of the scarlet in the Virginian Cardinal, Allen Silver writes (page 159) that a Virginian Cardinal moulted in captivity had retained its wild colour and was fed daily with dates which it ate with avidity. So it does appear that food is one cause of the loss or retention of colour, but there may be other causes.

Could not more members write letters to our Magazine? It would, I am sure, help other members and not least our devoted Editor. Members may hesitate or lack the time or inclination, to write the more formal article but letters may give and, in return evoke, most valuable information.

GODFREY DAVIS.

BERESFORDS,
BOUGHTON MONCHELSEA,
NEAR MAIDSTONE, KENT.

I was interested in a letter by Edward J. Boosey on the loss of red colours by birds in captivity. Especially where he says the Red-eared and Red-vented Bulbuls both keep their red. This is *not* so. I have both kinds and until last year they did keep their red, but owing to a bad season and hedges ripped out and trees cut down the elderberries I had always relied on for colour feeding were in very short supply and both birds had faded to a pink. This year I am colour feeding with the new colour food "Supa col." and look forward to renewed colours.

D. E. BUCKSEY.

BELLVUE,
GREEN LANE,
HAMBLEDON,
HANTS.

CONFUSION CAUSED BY VERNACULAR NAMES USED BY AVICULTURISTS

British and American ornithologists have made much progress in recent years in reaching agreement on uniform English names for birds found in both Check-lists. For those birds which are merely casual visitors on one side of the Atlantic, the usual standard name on both sides will be that by which the bird is known in its proper home.

Aviculturists would not dream of inventing a series of names of their own for British birds. Is it too much, then, to ask of British aviculturists that they refer to American birds by the standard English names used in the American Ornithologists' Union "Check-list"? American ornithologists, particularly students of bird behaviour, have learned that there is a wealth of information to be obtained from the avicultural literature, but their task of mining for this wealth is doubled in difficulty, thanks to the use of these unfamiliar names for familiar species.

This letter was prompted by Mr. Boosey's reference in the July–August number to his pair of "Canadian Mountain Blue Robins". "Despite their name," states Mr. Boosey, "there is little of the Robin about them." But this is *not* their name in the land of their origin (which is not necessarily Canada, as the breeding range of this species extends almost to the Mexican border). Here the bird is officially known by the simple and appropriate name of "Mountain Bluebird". Is "Canadian Mountain Blue Robin" an improvement?

In leafing through the past volume or two of the AVICULTURAL MAGAZINE, I find

the following names used for North American birds ; with each I give the name used in the A.O.U. Check-list (both English and scientific) :—

" Nonpareil Bunting " = Painted Bunting (*Passerina ciris*).
" Carolina " (not even " Carolina Duck " !) = Wood Duck (*Aix sponsa*).
" American Little Egret " = Snowy Egret (*Leucophoyx thula*).
" Blue Robin " = (presumably) Eastern Bluebird (*Sialia sialis*).
" North American White-headed (or Bald) Eagle " = Bald Eagle (*Haliaeetus leucocephalus*).
" Virginian Cardinal " = Cardinal (*Richmondena cardinalis*).

There is, perhaps, more justification for this last name than for most, since there are Cardinals other than the North American. However, " Virginian " is no more appropriate for this species than would be, say, " Oxford Chaffinch " for *Fringilla coelebs*. " North American Cardinal " would be more nearly suitable.

This problem, of course, is only one small portion of the general (and very vexing) problem of English names for cage birds. The difficulties involved in trying to interpret the avicultural literature are nowhere better illustrated than by Mr. Anderson's letter in the May–June issue. Mr. Anderson apologizes for having called *Excalfactoria chinensis* " Button Quail " in an earlier communication. But he then goes on to say that " the true Button Quails are of the genus *Turnix* and *Coturnix*." This, of course, merely compounds the confusion, since *Coturnix* is the genus of the true Quail of the Old World, and *Excalfactoria* is, by many authors, considered no more than a subgenus of *Coturnix !* The true Button Quails, genus *Turnix*, are placed in their own family Turnicidae, which is, on anatomical grounds, included in the order Gruiformes or crane-like birds. The Chinese Painted Quail, which may be called either *Coturnix chinensis* or *Excalfactoria chinensis* depending upon whether one is a " lumper " or a " splitter ", is, of course, in the order Galliformes or fowl-like birds. The true Button Quails (*Turnix*) may be instantly distinguished from the true Quails by the fact that the former lack and the latter possess a hind tce.

The literature of aviculture would be of far more value if aviculturists could persuade themselves to adopt the English names used for birds in the ornithological literature. Granted that the latter are by no means always consistent, but I believe they are far less confusing in most cases than the alternative names employed by aviculturists.

KENNETH C. PARKES.

CARNEGIE MUSEUM,
PITTSBURGH 13,
PENNSYLVANIA,
U.S.A.

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CANDIDATES FOR ELECTION

ARTHUR S. BINKS, 20 Weston Avenue, Queensbury, Bradford, Yorks. Proposed by A. A. Prestwich.

THOMAS CHAMBERLAIN, "The Three Elms," Drew Street, Brixham, Devon. Proposed by Miss K. Bonner.

GUY DETRY, Avenue des Princes No. 1, Wavre, Belgium. Proposed by A. A. Prestwich.

Miss M. V. FABER, "Baurisheen," Oughterard, Co. Galway, Eire. Proposed by D. M. Reid-Henry.

BEVAN FORRESTER, 113 Balfour Street, Launceston, Tasmania, Australia. Proposed by A. A. Prestwich.

M. K. HIMMATSINJI, Jubilee Ground, Bhuj, Kutch, India. Proposed by Miss K. Bonner.

LARRY JAHNKE, St. John's University, Department of Conservation, Collegeville, Minnesota, U.S.A. Proposed by Miss K. Bonner.

Dr. LEWIS F. KIBLER, M.D., 716 Ohio River Blvd., Sewickley, Pa., U.S.A. Proposed by A. A. Prestwich.

GEORGE M. LACEY, Route 2, Box 217, Fort Myers, Florida, U.S.A. Proposed by Miss K. Bonner.

N. S. MALKINSON, Wargundy Orchards (Pty.), Ltd., P.O. Box 18, Westminster, O.F.S., South Africa. Proposed by Miss K. Bonner.

C. H. MELVIN, 331-27th Street, Hermosa Beach, Calif., U.S.A. Proposed by David West.

RICHARD G. H. SAVORY, 40 Marne Avenue, Flookburgh, Grange-over-Sands, Lancs. Proposed by Major R. G. H. Savory.

WERNER SCHMIDT, Venloerstr. 15, Neuss a. Rhein, Germany. Proposed by D. Overlander.

Mrs. E. SKINNER, 3 Seely Road, Lenton Sand, Nottingham. Proposed by Miss K. Bonner.

JAMES TALLON, 12 Cowley Avenue, Toronto 18, Ontario, Canada. Proposed by A. A. Prestwich.

J. I. WILSON, 510 Metropolitan Bank Building, 117 N.E. First Avenue, Miami 32, Florida, U.S.A. Proposed by A. A. Prestwich.

NEW MEMBERS

The thirty-four Candidates for Election in the July-August, 1958, number of the AVICULTURAL MAGAZINE were duly elected members of the Society.

READMITTED

Major C. P. H. SEATON, 62 Picardy Road, Belvedere, Kent.

CHANGES OF ADDRESS

DAVID R. CORBETT, to 9 Wellgarth, Ashness Gardens, Greenford, Middx.
D. M. COWARD, to 18 Longfellow Avenue, Wellsway, Bath.
BJORN HOLM, to Drottninggatan 12, Boden, Sweden.
GEORGE D. LAKE, to Potten Cross House, Iver Heath, Bucks.
C. R. PARTRIDGE, to 75 The Cottages, Stony Hills, Nr. Ware, Herts.
A. W. RICHARDS, to 1 Kathleen Street, North Ryde, N.S.W., Australia.
Captain H. S. STOKES, to 66 Dartmouth Road, Paignton, S. Devon.
PETER SUTTON, to Brook Farm, Frant Forest, Tunbridge Wells, Kent.
Mrs. P. SUTTON, to Brook Farm, Frant Forest, Tunbridge Wells, Kent.
R. THOMAS, to 53 Northwood Way, Northwood, Middx.
W. H. TIMMIS, to Central Syringe Laboratory, Paddington General Hospital, Harrow Road, London, W.9.
G. TH. VAN DAM, to Zoo-Centrum, Kroostweg 68, Zeist, Holland.

DONATIONS

	£	s.	d.
EDGAR A. TICKLE	2	0	0

MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is TWO PENCE PER WORD. *Payment must accompany the advertisement, which must be sent on or before the 15th of the month to* A. A. PRESTWICH, 61 CHASE ROAD, OAKWOOD, N. 14. *All members of the Society are entitled to use this column but the Council reserves the right to refuse any advertisements they consider unsuitable.*

WANTED

Cock Red Turtle Dove (*O. tranquebarica*) cash or exchange hen ; also hen Leadbeater's Cockatoo.—Dr. S. B. KENDALL, Weir Cottage, Bridge Road, Chertsey, Surrey.

WATERFOWL RINGS

Members are reminded that the Society's special blue rings are always available. All Waterfowl in collections, both public and private, should carry them.

Revised prices

Size.		*Price per dozen, post free.* s.	d.
2–3	Teal	4	0
3	Wigeon	4	9
4	Mallard, Pintail, etc.	5	6
4–5	Smaller geese	6	3
5	Greylag	7	0

Requests for rings should be addressed to the Hon. Secretary, Avicultural Society, c/o Zoological Society of London, Regent's Park, London, N.W. 1, from whom all particulars can be obtained.

POST-MORTEM EXAMINATIONS

Attention is drawn to the following rules :—

1. All birds to be addressed to the Pathologist, Zoological Society of London, Regent's Park, London, N.W. 1.

2. A brief account of the illness should be sent and, in addition, it should be stated *what other birds are kept on the same premises.*

3. Enclose full name and address and telephone number, so that the owner may be informed urgently of what action to take in case of infectious disease, or contacted if further information is required.

4. Fees are based on the amount of work done. The basic fee for a single post-mortem examination is 10*s.*, but bacteriological and other laboratory tests are charged extra. Where more than one bird is sent at the same time the fee is not necessarily as much as 10*s.* per bird.

5. No body or skin of any bird will be returned under any circumstances whatever.

ARTHUR A. PRESTWICH,
Hon. Secretary.

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